

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 9631WO/UR/FB	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/SE2004/002002	International filing date (<i>day/month/year</i>) 23-12-2004	Priority date (<i>day/month/year</i>) 31-12-2003
International Patent Classification (IPC) or national classification and IPC See Supplemental Box		
Applicant ABB AB et al		

<ol style="list-style-type: none"> 1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of <u> 4 </u> sheets, including this cover sheet. 3. This report is also accompanied by ANNEXES, comprising: <div style="margin-left: 20px;"> a. <input type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of _____ sheets, as follows: <div style="margin-left: 20px;"> <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. </div> </div> <div style="margin-left: 20px;"> b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions). </div> 4. This report contains indications relating to the following items: <div style="margin-left: 20px;"> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <input checked="" type="checkbox"/> Box No. I <div style="margin-left: 10px;">Basis of the report</div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <input type="checkbox"/> Box No. II <div style="margin-left: 10px;">Priority</div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <input type="checkbox"/> Box No. III <div style="margin-left: 10px;">Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <input type="checkbox"/> Box No. IV <div style="margin-left: 10px;">Lack of unity of invention</div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <input checked="" type="checkbox"/> Box No. V <div style="margin-left: 10px;">Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <input type="checkbox"/> Box No. VI <div style="margin-left: 10px;">Certain documents cited</div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <input type="checkbox"/> Box No. VII <div style="margin-left: 10px;">Certain defects in the international application</div> </div> <div style="display: flex; align-items: center;"> <input type="checkbox"/> Box No. VIII <div style="margin-left: 10px;">Certain observations on the international application</div> </div> </div>

Date of submission of the demand 31-10-2005	Date of completion of this report 24-03-2006
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International application No.

PCT/SE2004/002002

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: **Cover sheet**

International patent classification (IPC)

H02J 3/12 (2006.01)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/SE2004/002002

Box No. 1 Basis of the report

1. With regard to the language, this report is based on:

- ☐ the international application in the language in which it was filed
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rules 12.3(a) and 23.1(b))
- ☐ publication of the international application (Rule 12.4(a))
- ☐ international preliminary examination (Rules 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

- ☒ the international application as originally filed/furnished
- ☐ the description:
- pages _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the claims:
- pages _____ as originally filed/furnished
- pages* _____ as amended (together with any statement) under Article 19
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the drawings:
- pages _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>2-22, 24-27</u>	YES
	Claims	<u>1, 23</u>	NO
Inventive step (IS)	Claims		YES
	Claims	<u>1-27</u>	NO
Industrial applicability (IA)	Claims	<u>1-27</u>	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Cited documents: D1: US 6476521 B1 D2: US 6496757 B1

The invention relates to a method and a device for selecting and dimensioning measures in case of instability in an electrical power system. In the method, according to claim 1, the actual voltage/phase angle is determined, the power unbalance is determined, appropriate power balancing measures are determined, the extent of every measure is dimensioned and the measures are accomplished. There also is a corresponding device defined in claim 23. Claims 1 and 23 are quite vague; it is not stated how, or even that, the power balancing measures are determined from the voltage/phase angle and power unbalance. Moreover, in the expression "voltage/phase angle" it is not clear whether the "/" stands for "or", for "and" or both. Anyhow, document D1 discloses a system for selecting and dimensioning measures for avoiding a collapse in an electric power system (see col. 7, lines 14-36). Voltages, phase angles and powers are determined (see for example col. 23, lines 6-20) and appropriate measures are taken. The invention defined in claims 1 and 23 is not clearly distinguishable from the art disclosed in document D1.

The remaining claims define trivial applications of well-known electrical measuring practice and emergency actions in power systems.

Document D2 describes the general state of the art.

To summarize, claims 1 and 23 lack novelty and the remaining claims lack an inventive step. The invention is industrially applicable.